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AUTHOR Goebel, Stephen D.; Sanchez, Kathryn S.
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ABSTRACT

The Houston Independent School District (Texas) began its alternative certification program (ACP) in the summer of 1985. The original proposal provided for a 1-year internship training program. Combining on-the-job training with supplemental, district-developed training modules, interns who are successful in the program would be recommended to the state for certification. This evaluation examines the effectiveness of the district's training program by comparing the student achievement of ACP interns with the student achievement of inexperienced and experienced teachers who were trained in traditional teacher education programs. Results generally indicated that the students of ACP interns achieve as well as the students of teachers who are trained through conventional university teacher training programs. (JD)

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Alternative Certification Program 1987–1988

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Houston Independent School District
Department of Research & Evaluation

Goebel, Stephen D., M.S.
Sanchez, Kathryn S., Ed.D.

Joan M. Raymond
General Superintendent

SP 032 900

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AN EVALUATION OF HISD'S ALTERNATIVE CERTIFICATION PROGRAM

FOR THE ACADEMIC YEAR: 1987 - 1988

The Alternative Certification Program (ACP) was implemented in HISD to help alleviate staffing shortages and to develop a teacher training program capable of producing teachers who are equal or superior to teachers who are trained via traditional methods. This evaluation examines the effectiveness of the District's training program by comparing the student achievement of ACP interns with the student achievement of inexperienced and experienced teachers who were trained in traditional teacher education programs. Results generally indicate that the students of ACP interns achieve as well as the students of teachers who are trained through conventional university teacher training programs.

The Alternative Certification Program (ACP) was implemented as a pilot program in HISD during the 1985-86 school year. The District initiated the program under the provisions of Texas House Bill 72 (Article 3, Part H) with the intent to alleviate staffing shortages and provide an alternative teacher training and certification program that produces teachers who are equal or superior to teachers trained and certified via traditional methods.

Since the inception of the program in 1985, HISD has conducted seven (7) ACP hiring cycles and engaged a total of 596 interns. As of August 1988, 401 of these interns have successfully completed the District's ACP program and gone on to obtain teaching certificates from the State of Texas. During the 1987-88 school year, HISD employed approximately 93 interns. The most recent training cycle (fall, 1988) consisted of 209 interns.

THE IMPETUS FOR THE PROGRAM

Since the early 1900's, teacher training in the United States has been predominantly the responsibility of teachers colleges and university schools of education. The approach to teacher preparation and training has been rather straightforward: individual states specify the certification requirements, and the colleges and universities orchestrate the programs that lead students to certification. This was not, however, always the case. Prior to the 1890's, only a very small number of private and public schools offered training programs in teacher education in the United States, and the curricula was meager at best (Cremin, 1961, p. 169). During the latter half of the 19th century, the paucity of teacher training programs and the poor quality of teachers in our nation's schools became a major concern of educationists and citizens alike. Conditions prompted one contemporary author to write that the "office of the teacher is perhaps the only one in the world that can be retained indefinitely in spite of the grossest negligence and incompetency (Rice, 1893, p. 15)." The demand for high quality programs was so great that by the early 1900's nearly a fourth

of all the colleges in the United States were offering teacher training programs of a professional nature (Cremin, 1961, p. 169).

By the latter half of the 20th century, schools of education had become predominant in the United States (Cremin, 1961, pgs. 306-307; Spring, 1986, pgs. 249-252). This change, however, led to a new problem. As public schools became more complex and bureaucratic and as demographic changes began to occur in the population of the United States, school systems began experiencing a shortage of teachers. To meet the demand, schools of education began lowering their academic standards. Parallel with a deterioration in standards, teachers consolidated their power as a professional group, established unions, and worked to protect themselves from the administrators and politicians who were in charge of the schools (Blumenfeld, 1984, Cremin, 1961, Curti, 1968, Hofstadter, 1964, Lasch, 1978, Smith, 1949, Spring, 1986). The effect was to compound real teacher shortages with artificially created shortages, a situation which provided teacher unions with greater bargaining power. This power base eventually became so great that by 1949, one mid-twentieth century writer (Smith, pg. 7) trenchantly observed that public schoolmen constituted a "cohesive body of believers with a clearly formulated set of dogmas and doctrines" and that they were "perpetuating the faith by seeing to it, through state laws and the rules of state departments of education, that only those teachers and administrators are certified who have been trained in correct dogma."

Thus, for the better part of the 20th century, there has been a generally persistent shortage of well trained, highly qualified teachers. University training programs and state certification requirements, intended to meet this demand, have actually contributed to a decline in teacher training standards and the creation of labor shortages in the teacher ranks (Blumenfeld, 1984; Hofstadter, 1964; Lasch, 1978).

More recently, the Carnegie Forum on Education and the Economy (1986) concluded that teacher training standards in the United States had deteriorated to such a low level that major reforms were needed. The Forum noted that there are teachers graduating from college "who are unable to spell, write, speak grammatically, or solve arithmetical word problems" and that this is an "indictment of the institutions of higher education and licensing authorities (*A Nation Prepared*, pg. 73)." The Forum acknowledged that too many education programs produce graduates who complain that their college courses failed to prepare them for teaching. It also reported that teachers complain of spending too much time studying how to teach and not what to teach (pg. 71). The Forum recommended that teacher training standards be raised and that states "should abolish the undergraduate degree in education and make professional teacher education a graduate level enterprise, building on a base of sound undergraduate education in the arts and sciences (pg.70)." Forum participants went on to state that "new policies are needed for teacher education," policies that enable the teaching profession to "draw on the largest possible pool of qualified people and not exclude people who did not take education courses as undergraduates (pg. 71 and 72)." This position is a clear reversal of the original policies that promulgated undergraduate degrees in education.

In a similar vein, Joyce and Clift (1984) report, as a result of their studies, that teacher education departments draw poor students and that the students themselves report that their training and preparation are poor. These researchers report that teachers perceive that their training programs are lacking in practical theory, but Joyce and Clift go on to state that teacher training programs do not offer any theory at all, and the programs that do exist are not products of research. They further contend that the educational research which does exist is generally meaningless and of no practical value to the teacher (pg. 6). They conclude that "the current process of learning to teach socializes teachers to a practicality ethic where survival concerns dominate (pg. 6)." They acknowledge that "the socialization of teachers has not been studied extensively, but there is speculation that disillusionment is common; that there is movement from an idealistic performance oriented stance to one of resignation to an intractable problem (pg. 6)."

Joyce and Clift assert that traditional "certification is the dreadful enemy of innovation in teacher education" and they conclude that as long as "certification is vested in legislation and the immediate practical needs of schools dominate field experiences, it will be difficult to implement any proposal for the general reform of education (pg. 14)."

TEXAS - THE 1980'S

Cognizant of problems associated with public education in the State of Texas, the Texas Legislature passed an educational reform package in 1985. Referred to as House Bill 72, one target of reform was teacher education and training. Contained in this bill were provisions for local school districts to develop and implement *alternative teacher certification training programs*. Although a boon to local districts attempting to alleviate staffing shortages and improve the quality of their teaching staff, opposition quickly developed from the colleges of education. University departments of education were now in a position of having to compete with local school districts for student teachers. Their opposition became even more vigorous when financial support for universities began to erode as the result of an economic decline in the state's oil industry in the early 1980's.

As state tax revenues declined during the early and mid-1980's, financial aid for students became more difficult to acquire. Students who enter teacher training programs tend to be low achievers and many require financial assistance (Anderson, et al., 1986; *A Nation Prepared*, pg. 35). The colleges of education stood to lose this revenue, and education department programs might have to be severely curtailed or even eliminated. In fact, the University of Houston recently announced that it was abolishing its undergraduate program in education.

Before H.B. 72, students with degrees in fields other than education had to return to college for almost two years in order to obtain teacher certification—something the departments of education would like to see happen. An opportunity for graduates to teach and earn while they learn was perceived by the colleges of education as a threat to their financial security. In addition, with a downturn in the economy of the state, an alternative certification program offered unemployed professionals an opportunity to change careers

without having to return to college, incurring additional financial hardships, in order to obtain a teaching certificate. It gave school districts a chance to hire teacher trainees with degrees in content domains that are perceived to be superior to a degree in education (Blumenfeld, 1984; Mitchell, 1981).

In addition to the challenge posed to the colleges of education, the state's powerful teacher unions disliked the ACP because it threatened their ability to collaborate with the colleges of education to regulate entry into the teaching profession, making it more difficult for them to create artificial teacher shortages and hence improve their position at the bargaining table. In an interview with a *New York Times* reporter, the President of the Houston Federation of Teachers referred to alternative certification programs as "scab programs" that provide "unlimited sources of cheap labor... creating an artificial surplus of teachers (New York Times, Sept. 22, 1988, page 24)."

Not exactly enthralled with the prospect of having to eliminate their teacher training programs, in 1988 colleges of education in Texas and their lobbyists were successful in getting the Texas Legislature to pass Senate Bill 994. This bill established what was to become known as the Teacher Induction Program and appeared to provide the colleges of education with an opportunity to regain some control over the certification process. Section 13.038 of S.B. 994 states:

> (a) The State Board of Education and Coordinating Board, Texas College and University System, shall develop a comprehensive teaching induction program for the probationary period.
>
> (b) The induction program shall include a one year period of teaching cooperatively supervised by experienced teachers, school administrators, and *faculty of institutions of higher education* (italics mine).

As part of its general educational reform thrust, the State of Texas will abolish, as of 1991, undergraduate degrees in the field of education. Whereas the ACP virtually divorced the universities from the training and certification process, the Teacher Induction Program brought them more firmly back into the picture. The future of both programs, ACP and Teacher Induction, remain clouded (ACP less so than Teacher Induction), but one thing is certain: the monopoly in training programs that the colleges of education in Texas once enjoyed has been eliminated; the structures that emerge to replace this once powerful monopoly will have to be carefully monitored and controlled if the reform effort aimed at improving the quality of teachers is to succeed.

HISD'S PROGRAM

The Houston Independent School District began its alternative certification program (ACP) in the summer of 1985. The original proposal provided for a one-year internship training program. Combining on-the-job-training with supplemental, District-developed training modules, interns who are successful in the program would be recommended to the state for certification. Program objectives are (a) fill vacancies and (b) develop a teacher-training program that produces teachers who are equal or superior to teachers who are trained via traditional methods.

As part of the original proposal, an evaluation component was outlined. Basically, the evaluation of the ACP would involve comparing the student achievement of ACP interns with the student achievement of teachers who received their training in the colleges of education. In the fall of 1985, auditors from the Texas Education Agency (TEA) met with HISD Research Department representatives to discuss issues, problems and concerns facing the District's evaluation team as it prepared for the task of evaluating the program. One of the issues over which the auditors expressed concern were the standards for entry into the ACP—they were higher than the standards for entry into a college of education. At the time of the audit, ACP interns were required to have a college grade point average (GPA) in excess of 3.00; colleges of education only required a GPA of 2.50. The auditors (an employee of the TEA and two Department Chairs of state colleges of education) felt that the interns, selected for their high GPA and content area degrees, would make better teachers than graduates with degrees in education. They believed that this would influence, in favor of the interns, any evaluation findings. Although this was not systematically investigated in subsequent evaluations, in response to external pressure, the District eventually lowered its GPA entry standard to 2.50.

The auditors also insisted that any evaluation model would have to control for student characteristics that are known to influence student achievement. The literature is replete with examples of research that demonstrates that the ethnic characteristics of students as well as their socio-economic status (SES) are highly correlated with standardized achievement tests (Jensen, 1969 and 1970; Sowell, 1986). Although the debate is far from over as to whether or not differences in student achievement are due to environmental or hereditary factors, the auditors were correct in concluding that these factors, ethnicity and SES, would influence student achievement and should be controlled for.

PREVIOUS HISD EVALUATION EFFORTS

An interim process evaluation of the ACP was conducted in the fall of 1985, and two product evaluation reports have been released for the 1985-86 and 1986-87 school years (Goebel, 1986, 1986, 1987). These reports conclude that the ACP has been successful in filling District teaching vacancies and that with minor but insignificant exceptions, the achievement levels of students who have been taught by ACP interns are no different from the achievement levels of students who have been taught by teachers trained

via traditional methods—findings consistent with the program's goals. Perhaps one of the more salient findings of these earlier evaluation efforts was the fact that a majority of principals, when asked, stated that in spite of the paper-work associated with hiring an ACP intern, if they had the option of hiring another intern, they would.

EVALUATION: 1987-88

The evaluation objective for the ACP is to determine if students of ACP interns are performing on standardized achievement tests as well as the students of teachers who are trained via traditional methods; however, producing a meaningful evaluation of the ACP is contingent upon finding suitable student/teacher comparison groups for analysis. The fact that the program fills teaching vacancies is accepted as an axiom; the fact that the District begins each school year with several hundred teaching vacancies and that many of these vacancies continue to exist throughout the year would suggest that the programs inability to fill all vacancies is perhaps more a function of political constraints and is not due to any inadequacy on the part of the program—the ACP could conceivably fill them all.

METHOD

Sample

Based on their 1987-88 instructional assignments, 125 ACP interns were deemed suitable for inclusion in the current evaluation. Those interns not included in this evaluation study were omitted for one of two possible reasons: they taught students for whom there are no suitable dependent variable measures, or they were given assignments in instructional categories where there were simply too few interns to represent a sample large enough for meaningful statistical analyses. ACP interns with high school assignments were not included at all—there is no suitable outcome measure at this level of instruction. The only available instrument is the TEAMS, but it is only administered to a select group of students. In addition, it is a criterion referenced test that is graded on a pass/fail basis. Problems with the test as well as the population of examinees make it virtually impossible to evaluate the performance of ACP interns with high school assignments via their students' TEAMS results.

Procedure

The basic evaluation strategy is straightforward: the MAT-6 achievement results for the students of ACP interns is compared with the achievement results for the students of teachers who were certified by traditional means but have only one year of teaching experience. A second comparison is made with teachers who were certified by traditional means and have five or more years of teaching experience. The evaluation goal, which is consistent with the program goal, is to determine whether or not the students of ACP

interns achieve as well as students who are taught by first year certified (FYC) and experienced (EXP) teachers.

An underlying assumption of this evaluation, in addition to the training received, is that teacher experience influences student achievement. Therefore, elementary ACP interns were subdivided into two analytical categories: those interns who were hired during the first, second, and third hiring cycles, and those interns who were hired during the fourth, fifth, and sixth hiring cycles. The first group consists of elementary interns who have more experience teaching than the latter group. At the middle school level, however, a division into these two groups would result in unacceptable sub-sample sizes; therefore, no effort was made to divide middle school ACP interns into separate groups for additional analyses based on their levels of experience.

Statistics

For the present evaluation, the class characteristics for each ACP intern and HISD teacher included in the study were described in terms of the percent of students in each class who were white, the percent of students in each class who were receiving free lunch assistance, and the class MAT-6 mean achievement scores. The percent of white students in each class and the percent of students in each class who were receiving free lunch assistance are surrogate measures for ethnicity and SES—characteristics correlated with achievement test results. The decision to use percent white was completely arbitrary; it would have been just as easy to use percent non-white. But the idea was to find concomitant metric variables that were surrogates of ethnicity and SES which could be incorporated into an analysis of covariance model (ANCOVA).

The specific unit of analysis was the *class or classes* that the teachers instructed and not the individual student. At the elementary level, grade levels were collapsed into a single category in order to maintain sufficiently large enough n's for statistical analysis. At the middle school level, course numbers were collapsed into categories. For example, teachers at the middle school level who taught Algebra I or Algebra II are grouped for the purpose of this study as a single set of Algebra teachers. Each teacher included in the study had a minimum of 10 students for class characteristics to be established, and the students had to be present for at least 80 percent of the school year.

Statistically, the factor was the *teacher group* and the covariates were the *percent of white students* in each class and the percent of students in each class receiving *free lunch assistance*. The dependent variable was the MAT-6 (composite NCEs). Separate analyses were conducted for the elementary and middle school levels.

RESULTS

Table 1 shows the results of the elementary ANCOVA analysis. The ACP interns who were hired during cycles 1, 2, and 3 have more teaching experience than the interns who were hired during cycles 4, 5, and 6. The group mean MAT-6 NCEs have been adjusted for covariate effects. The reported means are actually *means of class means*—the unit of analysis is the class or classes of the teachers and not the individual student.

Table 1

Elementary Analysis

ANCOVA of Independent and Dependent Variables

Teacher Group (independent variable)	Number in Group	MAT-6 Complete Battery Group Mean NCE, adjusted for covariate effects (dependent variable)*
ACP (1,2,3)	33	56.94
ACP (4,5,6)	64	51.30
FYC	30	48.55
EXP	126	56.67

*Significant ($P < .001$)

The ANCOVA results show that there are significant differences ($P < .001$) in student achievement, at the level of the classroom, between the four teacher groups. Table 1 reveals that the achievement of students assigned to experienced ACP interns and those assigned to EXP teachers is superior to the achievement of students assigned to inexperienced ACP interns and FYC teachers. This does not mean, however, that the teacher grouping factor is responsible for the observed differences. An omega squared analysis of the results indicate that the teachers only account for 3% of the between group variance.*

*The omega squared statistic is a method for estimating the strength of associations between the independent and dependent variable elements in a multivariate statistical model; it is similar to a correlation coefficient. There are a variety of ways for doing this and each has its respective limitations, but this approach has as much to offer as any of the others. For a detailed review, see Hayes, William L. *Statistics for the Social Sciences*. New York: Holt, Rinehart and Winston, Inc.; 1973, pages 417 and 485-487.

The results of the middle school analysis revealed that there were no significant differences between the teacher groups. At both levels—elementary and middle—the covariates accounted for 36% and 59% of the between-group variance respectively.

DISCUSSION

These findings, suggesting that the students of ACP interns do as well on achievement tests as the students of other teacher groups, are generally consistent with the findings of earlier evaluations of HISD's Alternative Certification Program. They are also consistent with the research of Wright, et al. (1987) which found, in a two year study of California's alternative certification program, that interns as a group were performing as well as other beginning and emergency teacher groups. The weak or non-existent associations between the teacher grouping factor and the dependent variable parallels the findings of other researchers. For example, Dworkin (1985), conducting research in the Houston Independent School District, found that "prior achievement and student abilities better explained achievement test scores than... any clustering of school and teacher variables."

As with any evaluation, however, there are limitations with the data and analytical procedures that restrict meaningful interpretation. There are the usual assumptions concerning the group distributions and variances as well as some specific assumptions that have to be met when doing ANCOVA's. Ignoring for the moment the normality of the distributions and the homogeneity of the variances, researchers must assume a linear relationship between the concomitant variables (the covariates) and the dependent variable. It is also assumed that the concomitant variables are not affected by the experimental treatment. If nonlinearity exists between the concomitant and dependent variables, the error term in the ANCOVA may be inflated thereby lowering the efficiency of the test. Due to the exigencies of this evaluation, the requirement of linearity was not systematically investigated, nor were assumptions concerning distribution normality and variance homogeneity. Furthermore, the lack of random assignment of teachers into each of the groups limits the generalizability of the findings.

Another problem involved collapsing the MAT-6 scores across elementary grade levels, but this was necessary in order to maintain sample sizes large enough for statistical analysis. Nevertheless, significant between grade level effects could have been present, but were masked as a result of the grade level aggregation. Similarly, at the middle school level, teachers only instruct students in a specific content area for about 45 minutes a day out of a 6 or 7 hour day. One would not expect the impact of 45 minutes of instruction in Algebra on the MAT-6 complete battery to be very great. Again, it was not possible to evaluate the middle school interns at the level of content area instruction; the sample n's would be too small.

Perhaps the most serious limitation with this evaluation is the attempt to evaluate the performance of teachers by using an instrument that was intended to evaluate the performance of students. This has always been a problem for educational evaluators trying

to assess the impact of teacher performance on student achievement. Clearly, the characteristics of students as they enter the classroom—their prior levels of achievement, their personal attributes, the effects of their home environment—influences, to a much larger degree, their performance on standardized achievement tests. But in this evaluation it must be assumed that the relative impact of the teacher on the student is much greater than what any of our measures are showing.

CONCLUSION

It is clear from the preceding analysis that the students of ACP interns are not experiencing any deleterious consequences as a result of having been exposed to intern teaching styles and abilities. This conclusion is completely consistent with the ACP evaluation objectives for HISD: to determine if students of ACP interns are performing on standardized achievement tests as well as the students of teachers who are trained via traditional methods. Given these findings and the findings of previous studies, the program appears to be a viable alternative to teacher colleges and university teacher training programs.

REFERENCES

A Nation Prepared: Teachers for the 21st Century—The Report of the Task Force on Teaching as a Profession. Carnegie Forum on Education and the Economy, 1986.

ANDERSON, D., et al. *Tomorrows Teachers: A Report of the Holmes Group.* New York, Holmes Group, Inc., 1986, pgs. 46-47.

AVERCH, A., et al. *How Effective is Schooling: A Critical Review of the Research.* Englewood Cliffs, New Jersey: Educational Technology Publications, 1974.

BLUMENFELD, S. *NEA: Trojan Horse in American Education.* Boise, Idaho: The Paradigm Co., 1984.

CREMIN, L. *The Transformation of the School: Progressivism in American Education, 1876 - 1957.* New York: Alfred A. Knopf, 1961.

CURTI, M. *The Social Ideas of American Educators.* New Jersey: Littlefield, Adams & Co.,1968.

DAMERELL, R. *Education's Smoking Gun: How Teachers Colleges Have Destroyed Education in America.* New York: Freundlich Books, 1985.

DWORKIN, A. *When Teachers Give Up: Teacher Burnout, Teacher Turnover and Their Impact on Children.* Hogg Foundation for Mental Health (monograph), U.T. Austin, Texas, 1985.

GOEBEL, S. *Alternative Certification Program: Preliminary Report, Spring 1986.* Houston Independent School District, 1986.

GOEBEL, S. *Alternative Certification Program: Final Report, 1985-86.* Houston Independent School District, 1986.

GOEBEL, S. *Alternative Certification Program: Final Report, 1986-87.* Houston Independent School District, 1987.

HAYES, W. *Statistics for the Social Sciences.* New York: Holt, Rinehart & Winston, Inc., 1973.

HOFSTADTER, R. *Anti-Intellectualism in American Life.* New York: Alfred A. Knopf, 1964, see specifically Chapter 12.

JENSEN, A. How Much Can We Boost IQ and Scholastic Achievement? *Harvard Educational Review,* 1969, Vol. 39.

JENSEN, A. Another Look at Culture Fair Testing, in J. Hellmuth (ed.), *Disadvantaged Child*, Vol. 3. New York: Brunner/Mazel, 1970, 53-101.

JOYCE, B. & CLIFT, R. The Phoenix Agenda: Essential Reform in Teacher Education. *Educational Researcher*, 1984, 13(4), 5 - 18.

LASCH, C. *The Culture of Narcissism: American Life in an Age of Diminishing Expectations*. New York: W.W. Norton & Co., 1978, see specifically Chapter 6.

MCKIBBIN, M. Alternative Teacher Certification Programs. *Educational Leadership*, 1988, 46(3), 32 - 35.

MCLAUGHLIN, M. *Evaluation and Reform: The Elementary and Secondary Education Act of 1965, Title I*. Cambridge, Mass.: Ballinger Publishing Company, 1975.

MITCHELL, R. *The Graves of Academe*. New York: Simon & Schuster, Inc., 1981.

RICE, J. *The Public School System in the United States*. New York: 1893.

RICKENBACKER, W. (ed.) *The Twelve Year Sentence: Radical Views of Compulsory Schooling*. Milwaukee, Wis.: Open Court Publishing Company, 1974.

ROBERTS, J. *Scene of the Battle: Group Behavior in Urban Classrooms*. New York: Anchor Books, 1971.

SMITH, M. *And Madly Teach: A Layman Looks at Public School Education*. Chicago: Henry Regnery Co., 1949.

SOLORZANO, L. Geologists and Lawyers Needn't Apply. *U.S. News and World Report*, July 27, 1987, page 58.

SOWELL, T. *Education: Assumptions Versus History*. Stanford, Calif.: Hoover Institution Press, 1986.

SPRING, J. *The American School: 1642 - 1985*. New York: Longman Inc., 1986.

SPRING, J. *Conflict of Interests: The Politics of American Education*. New York: Longman Inc., 1988.